



The Agricultural Research Service's research program on preventing diseases through nutrition is part of the agency's national program on Human Nutrition (#107).

There are many, many pieces in the complex puzzle of how nutrition and preventing diseases fit together, especially with chronic conditions such as cardiovascular disease and osteoporosis that result from multiple risk factors. ARS is one of the leaders in this area of nutrition research, and we are filling in the picture bit by bit.

We know nutrition can have an impact on inflammation and the body's immune response, but the mechanisms by which certain nutrients interact with each other and the body to lower the incidence of cardiac lesions or bone loss remain to be delineated. And we know obesity increases the likelihood of any number of diseases. But can consuming some level of specific nutrients change the likelihood of having those conditions? ARS scientists are trying to find out. Another example is whether eating antioxidants can decrease the incidence of cancer and, if so, how.

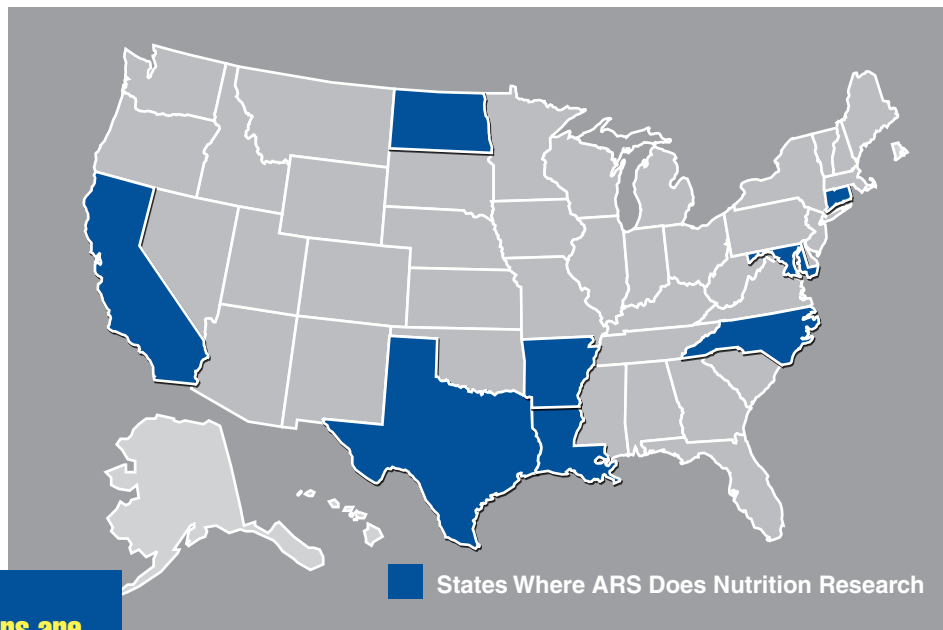
The picture becomes even more complex when you add in our growing understanding of chronic diseases. Now ARS scientists are working to discover whether eating certain amounts of nutrients like vitamin D and calcium at certain points in your life can overcome the likelihood of osteoporosis.

When it comes to determining the interrelation of nutrition, aging, and health, ARS has a special ongoing partnership with Tufts University in Boston through the USDA Jean Mayer Human Nutrition Research Center on Aging. But just as important is developing our understanding of how childhood nutrition may prevent diseases, either in childhood or later in life. That is one of the major focuses of

research at the ARS Children's Nutrition Research Center at Baylor College of Medicine in Houston, Texas, and the Arkansas Children's Nutrition Center in Little Rock.

ARS scientists are not pursuing the idea of nutrients as medicine so much as they

are researching how what you eat can help guide the body away from certain disease conditions. Once that picture is clarified, we could be on the track to healthier dietary patterns that reduce the prevalence of chronic diseases with healthier diet patterns.



**Researchers are developing our understanding of how nutrition may prevent diseases—in childhood or later in life.**

USDA—FOOD & NUTRITION SERVICE

